



STAX Crop Insurance Options for the 2022 CY and Eligibility Criteria Pertaining to ARC/PLC Farm Programs

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The upland cotton lint price is expected to remain strong in the coming year. As cotton growers evaluate their risk management strategies for the 2022 crop year, important eligibility criteria must be identified pertaining to participation in the ARC/PLC farm program administered by USDA FSA and crop insurance policies administered by the USDA RMA.

The Stacked Income Protection Plan (STAX) is a crop insurance product for upland cotton that provides coverage for a portion of the expected revenue for an area, specifically the county/parish. STAX pays a loss on an area wide basis, and an indemnity is triggered when there is an area loss in revenue or yield. STAX payments are determined only by area average revenue and are not affected by whether a grower receives a payment on their companion policy (if purchased). Therefore, it is possible for a grower to experience an individual loss on their companion policy but not trigger an area-based STAX payment (i.e., grower does poorly but the overall area does well), or vice-versa.

Electing ARC or PLC does not cause a farm to be ineligible for STAX coverage. However, STAX coverage is affected by enrollment in ARC/PLC. Enrolling seed cotton base on a farm in ARC/PLC makes that farm ineligible for STAX. Suppose a producer plants 500 acres of upland cotton on a farm with 200 seed cotton base acres (and those 200 acres are enrolled in an annual ARC/PLC contract). STAX coverage on the remaining 300 acres cannot be obtained because by the producer's enrolling the farm in seed cotton ARC/PLC, that producer's decision, by legislative definition, makes all upland cotton acreage on that farm ineligible for STAX coverage. Furthermore, STAX eligibility is not affected by ARC/PLC enrollment on a farm that has no seed cotton base acres or no seed cotton base acres enrolled. Enrolling commodities other than seed cotton in ARC/PLC will not render the farm's upland cotton ineligible for STAX coverage.

Early USDA-estimates of the U.S. national marketing year average price of upland cotton lint price for 2022/23 are projected at \$0.80 per pound. When this projected upland cotton lint price of \$0.80 per pound is coupled with a \$200 per ton cottonseed price, the price for seed cotton is calculated to be \$0.4047 per pound. As such, this scenario illustrates that higher cotton prices for both upland cotton lint and cottonseed, a seed cotton PLC support payment would not be triggered in 2022/23, as the projected seed cotton price (\$0.4047) is greater than the \$0.3670 per pound reference price. For the ARC-CO program, the methodology is slightly more complex as county/parish yield is another metric in calculating the potential revenue loss for seed cotton in the particular parish. As an example, the East Carroll parish 2022 ARC-CO revenue guarantee is \$869.98 per acre. Using the \$0.4047 per pound seed cotton price, the parish seed cotton yield for East Carroll parish would need to fall below 2,149 pounds (or 896 lint pounds per acre). To reach at maximum ARC-CO payment rate of \$101.16, the parish seed cotton yield would have to fall below 1,899 pounds per acre (or 791 lint pounds per acre). The seed cotton yields for East Carroll from 2016-2020, the period used in calculating the benchmark and subsequent revenue

guarantees, have ranged from 2,561 to 2,874 (1,067 to 1,197 lint pounds per acre) excluding a low of 2,444 pounds and a high of 3,216 pounds. In summary, higher prices would require substantial yield decreases for the ARC-CO program to trigger.

The projected insurance price for cotton in Louisiana for the 2022 crop year is currently \$0.99 per pound (as of January 28, 2022). Note: the price discovery period remains open, with the project price being finalized on February 15, 2022. The USDA RMA Actuarial Information Browser provides 2022 crop year values of expected area yield and subsidy rates for irrigated and non-irrigated cotton in Louisiana. As values are yet to be finalized by the USDA RMA, this report provides an overview of the operational mechanics of the STAX revenue protection crop insurance policy for five selected Louisiana parishes in multiple cotton-producing regions within the state. Those parishes are Caddo, Rapides, Pointe Coupee, Tensas, and East Carroll. A projected insurance price of \$0.99 is paired with a hypothesized final insurance price of \$0.90 per pound, respectively. Area yields for each parish are set to vary slightly from the RMA-reported expected area yield so that a revenue loss was sustained. Results are presented in the appendix of this report. STAX coverage is presented across each of the 20% to 5% incremental levels. Producer-paid policy premiums are estimated based on USDA RMA actuarial information tables.

In summary, STAX does offer risk protection, even at higher cotton prices, as a key component of the policy is designed to capture decreases in revenue (price or area yield). When these higher prices and yield losses are paired with ARC-CO/PLC performance, STAX appears to provide better risk protection, subject to the assumed parameters of this study. Thus, making the foregoing ARC/PLC participation one to consider in a time of higher commodity prices when evaluating the performance of commodity programs and crop insurance choices for cotton.

The sales closing date for crop insurance purchases in Louisiana is February 28, 2022.

Appreciation is extended to the Louisiana State Support Committee of Cotton Incorporated for their support of this applied research.

This information is presented for education purposes only, as commodity price, insurance price, and area yields are preliminary estimates as of January 27, 2022.



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Appendix

Table 1. STAX operational mechanics for irrigated cotton in Caddo Parish, LA.

1. Determine range of coverage		1. Determine range of coverage		1. Determine range of coverage		1. Determine range of coverage	
Area Loss Trigger (%)	90%	Area Loss Trigger (%)	90%	Area Loss Trigger (%)	90%	Area Loss Trigger (%)	90%
Area Loss Ending (%)	70%	Area Loss Ending (%)	75%	Area Loss Ending (%)	80%	Area Loss Ending (%)	85%
STAX Coverage Range ^{1/}	20%	STAX Coverage Range ^{1/}	15%	STAX Coverage Range ^{1/}	10%	STAX Coverage Range ^{1/}	5%
2. Calculate STAX policy protection		2. Calculate STAX policy protection		2. Calculate STAX policy protection		2. Calculate STAX policy protection	
Proj. Insurance Price	\$0.99	Proj. Insurance Price	\$0.99	Proj. Insurance Price	\$0.99	Proj. Insurance Price	\$0.99
Harvest Insurance Price	\$0.90	Harvest Insurance Price	\$0.90	Harvest Insurance Price	\$0.90	Harvest Insurance Price	\$0.90
Expected Area Yield	918.0	Expected Area Yield	918.0	Expected Area Yield	918.0	Expected Area Yield	918.0
Expected STAX Value ^{2/}	\$908.82	Expected STAX Value ^{2/}	\$908.82	Expected STAX Value ^{2/}	\$908.82	Expected STAX Value ^{2/}	\$908.82
STAX Coverage Range	20%	STAX Coverage Range	15%	STAX Coverage Range	10%	STAX Coverage Range	5%
Protection Factor ^{3/}	1.00	Protection Factor ^{3/}	1.00	Protection Factor ^{3/}	1.00	Protection Factor ^{3/}	1.00
STAX Policy Protection	\$181.76	STAX Policy Protection	\$136.32	STAX Policy Protection	\$90.88	STAX Policy Protection	\$45.44
3. Calculate the revenue loss (if any)		3. Calculate the revenue loss (if any)		3. Calculate the revenue loss (if any)		3. Calculate the revenue loss (if any)	
Final Area Yield	850.0	Final Area Yield	850.0	Final Area Yield	850.0	Final Area Yield	850.0
Harvest Price	\$0.90	Harvest Price	\$0.90	Harvest Price	\$0.90	Harvest Price	\$0.90
Final Area Revenue	\$765.00	Final Area Revenue	\$765.00	Final Area Revenue	\$765.00	Final Area Revenue	\$765.00
Percent of Exp. Revenue	84.18%	Percent of Exp. Revenue	84.18%	Percent of Exp. Revenue	84.18%	Percent of Exp. Revenue	84.18%
4. Calculate the STAX payment factor		4. Calculate the STAX payment factor		4. Calculate the STAX payment factor		4. Calculate the STAX payment factor	
Area Loss Trigger	90%	Area Loss Trigger	90%	Area Loss Trigger	90%	Area Loss Trigger	90%
Percent of Exp. Revenue	84.18%	Percent of Exp. Revenue	84.18%	Percent of Exp. Revenue	84.18%	Percent of Exp. Revenue	84.18%
Percent Loss	5.82%	Percent Loss	5.82%	Percent Loss	5.82%	Percent Loss	5.82%
STAX Coverage Range	20%	STAX Coverage Range	15%	STAX Coverage Range	10%	STAX Coverage Range	5%
STAX Payment Factor ^{4/}	0.291	STAX Payment Factor ^{4/}	0.388	STAX Payment Factor ^{4/}	0.582	STAX Payment Factor ^{4/}	1.165
5. Calculate the STAX indemnity payment		5. Calculate the STAX indemnity payment		5. Calculate the STAX indemnity payment		5. Calculate the STAX indemnity payment	
Indemnity per acre	\$52.94	Indemnity per acre	\$52.94	Indemnity per acre	\$52.94	Indemnity per acre	\$45.44
6. STAX Premium		6. STAX Premium		6. STAX Premium		6. STAX Premium	
Price Volatility	0.14	Price Volatility	0.14	Price Volatility	0.14	Price Volatility	0.14
Coverage Range	20%	Coverage Range	15%	Coverage Range	10%	Coverage Range	5%
RMA Act. Data ^{5/}	0.4274	RMA Act. Data ^{5/}	0.4667	RMA Act. Data ^{5/}	0.53317	RMA Act. Data ^{5/}	0.578
Total Premium	\$77.69	Total Premium	\$63.62	Total Premium	\$48.46	Total Premium	\$26.26
FCIC Subsidized Portion ^{6/}	\$62.15	FCIC Subsidized Portion ^{6/}	\$50.90	FCIC Subsidized Portion ^{6/}	\$38.76	FCIC Subsidized Portion ^{6/}	\$21.01
GRW Portion of Premium	\$15.54	GRW Portion of Premium	\$12.72	GRW Portion of Premium	\$9.69	GRW Portion of Premium	\$5.25
GRW Indemnity Less Premium	\$37.40	GRW Indemnity Less Premium	\$40.21	GRW Indemnity Less Premium	\$43.25	GRW Indemnity Less Premium	\$40.19

Notes:

^{1/} The STAX coverage range is in increments of 5% and cannot exceed 20%.

^{2/} STAX operates as a RP policy which uses the higher of the insurance or harvest price.

^{3/} A protection factor can be selected between 0.80 (80%) and 1.2 (120%) to determine the maximum STAX policy protection level per acre.

^{4/} The STAX payment factor cannot be greater than 1.0.

^{5/} STAX policy premium rates is based off of a price volatility factor of 0.23 for an irrig. policy with varying coverage range (Caddo Parish).

^{6/} STAX policy premium is subsidized by FCIC at 80%.

Table 2. STAX operational mechanics for irrigated cotton in Rapides Parish, LA.

1. Determine range of coverage		1. Determine range of coverage		1. Determine range of coverage		1. Determine range of coverage	
Area Loss Trigger (%)	90%	Area Loss Trigger (%)	90%	Area Loss Trigger (%)	90%	Area Loss Trigger (%)	90%
Area Loss Ending (%)	70%	Area Loss Ending (%)	75%	Area Loss Ending (%)	80%	Area Loss Ending (%)	85%
STAX Coverage Range ^{1/}	20%	STAX Coverage Range ^{1/}	15%	STAX Coverage Range ^{1/}	10%	STAX Coverage Range ^{1/}	5%
2. Calculate STAX policy protection		2. Calculate STAX policy protection		2. Calculate STAX policy protection		2. Calculate STAX policy protection	
Proj. Insurance Price	\$0.99	Proj. Insurance Price	\$0.99	Proj. Insurance Price	\$0.99	Proj. Insurance Price	\$0.99
Harvest Insurance Price	\$0.90	Harvest Insurance Price	\$0.90	Harvest Insurance Price	\$0.90	Harvest Insurance Price	\$0.90
Expected Area Yield	830.0	Expected Area Yield	830.0	Expected Area Yield	830.0	Expected Area Yield	830.0
Expected STAX Value ^{2/}	\$821.70	Expected STAX Value ^{2/}	\$821.70	Expected STAX Value ^{2/}	\$821.70	Expected STAX Value ^{2/}	\$821.70
STAX Coverage Range	20%	STAX Coverage Range	15%	STAX Coverage Range	10%	STAX Coverage Range	5%
Protection Factor ^{3/}	1.00	Protection Factor ^{3/}	1.00	Protection Factor ^{3/}	1.00	Protection Factor ^{3/}	1.00
STAX Policy Protection	\$164.34	STAX Policy Protection	\$123.26	STAX Policy Protection	\$82.17	STAX Policy Protection	\$41.09
3. Calculate the revenue loss (if any)		3. Calculate the revenue loss (if any)		3. Calculate the revenue loss (if any)		3. Calculate the revenue loss (if any)	
Final Area Yield	775.0	Final Area Yield	775.0	Final Area Yield	775.0	Final Area Yield	775.0
Harvest Price	\$0.90	Harvest Price	\$0.90	Harvest Price	\$0.90	Harvest Price	\$0.90
Final Area Revenue	\$697.50	Final Area Revenue	\$697.50	Final Area Revenue	\$697.50	Final Area Revenue	\$697.50
Percent of Exp. Revenue	84.88%	Percent of Exp. Revenue	84.88%	Percent of Exp. Revenue	84.88%	Percent of Exp. Revenue	84.88%
4. Calculate the STAX payment factor		4. Calculate the STAX payment factor		4. Calculate the STAX payment factor		4. Calculate the STAX payment factor	
Area Loss Trigger	90%	Area Loss Trigger	90%	Area Loss Trigger	90%	Area Loss Trigger	90%
Percent of Exp. Revenue	84.88%	Percent of Exp. Revenue	84.88%	Percent of Exp. Revenue	84.88%	Percent of Exp. Revenue	84.88%
Percent Loss	5.12%	Percent Loss	5.12%	Percent Loss	5.12%	Percent Loss	5.12%
STAX Coverage Range	20%	STAX Coverage Range	15%	STAX Coverage Range	10%	STAX Coverage Range	5%
STAX Payment Factor ^{4/}	0.256	STAX Payment Factor ^{4/}	0.341	STAX Payment Factor ^{4/}	0.512	STAX Payment Factor ^{4/}	1.023
5. Calculate the STAX indemnity payment		5. Calculate the STAX indemnity payment		5. Calculate the STAX indemnity payment		5. Calculate the STAX indemnity payment	
Indemnity per acre	\$42.03	Indemnity per acre	\$42.03	Indemnity per acre	\$42.03	Indemnity per acre	\$41.09
6. STAX Premium		6. STAX Premium		6. STAX Premium		6. STAX Premium	
Price Volatility	0.14	Price Volatility	0.14	Price Volatility	0.14	Price Volatility	0.14
Coverage Range	20%	Coverage Range	15%	Coverage Range	10%	Coverage Range	5%
RMA Act. Data ^{5/}	0.4015	RMA Act. Data ^{5/}	0.4458	RMA Act. Data ^{5/}	0.4921	RMA Act. Data ^{5/}	0.5385
Total Premium	\$65.98	Total Premium	\$54.95	Total Premium	\$40.44	Total Premium	\$22.12
FCIC Subsidized Portion ^{6/}	\$52.79	FCIC Subsidized Portion ^{6/}	\$43.96	FCIC Subsidized Portion ^{6/}	\$32.35	FCIC Subsidized Portion ^{6/}	\$17.70
GRW Portion of Premium	\$13.20	GRW Portion of Premium	\$10.99	GRW Portion of Premium	\$8.09	GRW Portion of Premium	\$4.42
GRW Indemnity Less Premium	\$28.83	GRW Indemnity Less Premium	\$31.04	GRW Indemnity Less Premium	\$33.94	GRW Indemnity Less Premium	\$36.66

Notes:

^{1/} The STAX coverage range is in increments of 5% and cannot exceed 20%.

^{2/} STAX operates as a RP policy which uses the higher of the insurance or harvest price.

^{3/} A protection factor can be selected between 0.80 (80%) and 1.2 (120%) to determine the maximum STAX policy protection level per acre.

^{4/} The STAX payment factor cannot be greater than 1.0.

^{5/} STAX policy premium rates is based off of a price volatility factor of 0.23 for an irrig. policy with varying coverage range (Rapides Parish).

^{6/} STAX policy premium is subsidized by FCIC at 80%.

Table 3. STAX operational mechanics for irrigated cotton in Pointe Coupee Parish, LA.

1. Determine range of coverage		1. Determine range of coverage		1. Determine range of coverage		1. Determine range of coverage	
Area Loss Trigger (%)	90%	Area Loss Trigger (%)	90%	Area Loss Trigger (%)	90%	Area Loss Trigger (%)	90%
Area Loss Ending (%)	70%	Area Loss Ending (%)	75%	Area Loss Ending (%)	80%	Area Loss Ending (%)	85%
STAX Coverage Range ^{1/}	20%	STAX Coverage Range ^{1/}	15%	STAX Coverage Range ^{1/}	10%	STAX Coverage Range ^{1/}	5%
2. Calculate STAX policy protection		2. Calculate STAX policy protection		2. Calculate STAX policy protection		2. Calculate STAX policy protection	
Proj. Insurance Price	\$0.99	Proj. Insurance Price	\$0.99	Proj. Insurance Price	\$0.99	Proj. Insurance Price	\$0.99
Harvest Insurance Price	\$0.90	Harvest Insurance Price	\$0.90	Harvest Insurance Price	\$0.90	Harvest Insurance Price	\$0.90
Expected Area Yield	1077.0	Expected Area Yield	1077.0	Expected Area Yield	1077.0	Expected Area Yield	1077.0
Expected STAX Value ^{2/}	\$1,066.23	Expected STAX Value ^{2/}	\$1,066.23	Expected STAX Value ^{2/}	\$1,066.23	Expected STAX Value ^{2/}	\$1,066.23
STAX Coverage Range	20%	STAX Coverage Range	15%	STAX Coverage Range	10%	STAX Coverage Range	5%
Protection Factor ^{3/}	1.00	Protection Factor ^{3/}	1.00	Protection Factor ^{3/}	1.00	Protection Factor ^{3/}	1.00
STAX Policy Protection	\$213.25	STAX Policy Protection	\$159.93	STAX Policy Protection	\$106.62	STAX Policy Protection	\$53.31
3. Calculate the revenue loss (if any)		3. Calculate the revenue loss (if any)		3. Calculate the revenue loss (if any)		3. Calculate the revenue loss (if any)	
Final Area Yield	990.0	Final Area Yield	990.0	Final Area Yield	990.0	Final Area Yield	990.0
Harvest Price	\$0.90	Harvest Price	\$0.90	Harvest Price	\$0.90	Harvest Price	\$0.90
Final Area Revenue	\$891.00	Final Area Revenue	\$891.00	Final Area Revenue	\$891.00	Final Area Revenue	\$891.00
Percent of Exp. Revenue	83.57%	Percent of Exp. Revenue	83.57%	Percent of Exp. Revenue	83.57%	Percent of Exp. Revenue	83.57%
4. Calculate the STAX payment factor		4. Calculate the STAX payment factor		4. Calculate the STAX payment factor		4. Calculate the STAX payment factor	
Area Loss Trigger	90%	Area Loss Trigger	90%	Area Loss Trigger	90%	Area Loss Trigger	90%
Percent of Exp. Revenue	83.57%	Percent of Exp. Revenue	83.57%	Percent of Exp. Revenue	83.57%	Percent of Exp. Revenue	83.57%
Percent Loss	6.43%	Percent Loss	6.43%	Percent Loss	6.43%	Percent Loss	6.43%
STAX Coverage Range	20%	STAX Coverage Range	15%	STAX Coverage Range	10%	STAX Coverage Range	5%
STAX Payment Factor ^{4/}	0.322	STAX Payment Factor ^{4/}	0.429	STAX Payment Factor ^{4/}	0.643	STAX Payment Factor ^{4/}	1.287
5. Calculate the STAX indemnity payment		5. Calculate the STAX indemnity payment		5. Calculate the STAX indemnity payment		5. Calculate the STAX indemnity payment	
Indemnity per acre	\$68.61	Indemnity per acre	\$68.61	Indemnity per acre	\$68.61	Indemnity per acre	\$53.31
6. STAX Premium		6. STAX Premium		6. STAX Premium		6. STAX Premium	
Price Volatility	0.14	Price Volatility	0.14	Price Volatility	0.14	Price Volatility	0.14
Coverage Range	20%	Coverage Range	15%	Coverage Range	10%	Coverage Range	5%
RMA Act. Data ^{5/}	0.3298	RMA Act. Data ^{5/}	0.3893	RMA Act. Data ^{5/}	0.45	RMA Act. Data ^{5/}	0.5001
Total Premium	\$70.33	Total Premium	\$62.26	Total Premium	\$47.98	Total Premium	\$26.66
FCIC Subsidized Portion ^{6/}	\$56.26	FCIC Subsidized Portion ^{6/}	\$49.81	FCIC Subsidized Portion ^{6/}	\$38.38	FCIC Subsidized Portion ^{6/}	\$21.33
GRW Portion of Premium	\$14.07	GRW Portion of Premium	\$12.45	GRW Portion of Premium	\$9.60	GRW Portion of Premium	\$5.33
GRW Indemnity Less Premium	\$54.54	GRW Indemnity Less Premium	\$56.15	GRW Indemnity Less Premium	\$59.01	GRW Indemnity Less Premium	\$47.98

Notes:

^{1/} The STAX coverage range is in increments of 5% and cannot exceed 20%.

^{2/} STAX operates as a RP policy which uses the higher of the insurance or harvest price.

^{3/} A protection factor can be selected between 0.80 (80%) and 1.2 (120%) to determine the maximum STAX policy protection level per acre.

^{4/} The STAX payment factor cannot be greater than 1.0.

^{5/} STAX policy premium rates is based off of a price volatility factor of 0.23 for an irrg. policy with varying coverage range (Pointe Coupee Parish).

^{6/} STAX policy premium is subsidized by FCIC at 80%.

Table 4. STAX operational mechanics for irrigated cotton in Tensas Parish, LA.

1. Determine range of coverage		1. Determine range of coverage		1. Determine range of coverage		1. Determine range of coverage	
Area Loss Trigger (%)	90%	Area Loss Trigger (%)	90%	Area Loss Trigger (%)	90%	Area Loss Trigger (%)	90%
Area Loss Ending (%)	70%	Area Loss Ending (%)	75%	Area Loss Ending (%)	80%	Area Loss Ending (%)	85%
STAX Coverage Range ^{1/}	20%	STAX Coverage Range ^{1/}	15%	STAX Coverage Range ^{1/}	10%	STAX Coverage Range ^{1/}	5%
2. Calculate STAX policy protection		2. Calculate STAX policy protection		2. Calculate STAX policy protection		2. Calculate STAX policy protection	
Proj. Insurance Price	\$0.99	Proj. Insurance Price	\$0.99	Proj. Insurance Price	\$0.99	Proj. Insurance Price	\$0.99
Harvest Insurance Price	\$0.90	Harvest Insurance Price	\$0.90	Harvest Insurance Price	\$0.90	Harvest Insurance Price	\$0.90
Expected Area Yield	1047.0	Expected Area Yield	1047.0	Expected Area Yield	1047.0	Expected Area Yield	1047.0
Expected STAX Value ^{2/}	\$1,036.53	Expected STAX Value ^{2/}	\$1,036.53	Expected STAX Value ^{2/}	\$1,036.53	Expected STAX Value ^{2/}	\$1,036.53
STAX Coverage Range	20%	STAX Coverage Range	15%	STAX Coverage Range	10%	STAX Coverage Range	5%
Protection Factor ^{3/}	1.00	Protection Factor ^{3/}	1.00	Protection Factor ^{3/}	1.00	Protection Factor ^{3/}	1.00
STAX Policy Protection	\$207.31	STAX Policy Protection	\$155.48	STAX Policy Protection	\$103.65	STAX Policy Protection	\$51.83
3. Calculate the revenue loss (if any)		3. Calculate the revenue loss (if any)		3. Calculate the revenue loss (if any)		3. Calculate the revenue loss (if any)	
Final Area Yield	900.0	Final Area Yield	900.0	Final Area Yield	900.0	Final Area Yield	900.0
Harvest Price	\$0.90	Harvest Price	\$0.90	Harvest Price	\$0.90	Harvest Price	\$0.90
Final Area Revenue	\$810.00	Final Area Revenue	\$810.00	Final Area Revenue	\$810.00	Final Area Revenue	\$810.00
Percent of Exp. Revenue	78.15%	Percent of Exp. Revenue	78.15%	Percent of Exp. Revenue	78.15%	Percent of Exp. Revenue	78.15%
4. Calculate the STAX payment factor		4. Calculate the STAX payment factor		4. Calculate the STAX payment factor		4. Calculate the STAX payment factor	
Area Loss Trigger	90%	Area Loss Trigger	90%	Area Loss Trigger	90%	Area Loss Trigger	90%
Percent of Exp. Revenue	78.15%	Percent of Exp. Revenue	78.15%	Percent of Exp. Revenue	78.15%	Percent of Exp. Revenue	78.15%
Percent Loss	11.85%	Percent Loss	11.85%	Percent Loss	11.85%	Percent Loss	11.85%
STAX Coverage Range	20%	STAX Coverage Range	15%	STAX Coverage Range	10%	STAX Coverage Range	5%
STAX Payment Factor ^{4/}	0.593	STAX Payment Factor ^{4/}	0.790	STAX Payment Factor ^{4/}	1.185	STAX Payment Factor ^{4/}	2.371
5. Calculate the STAX indemnity payment		5. Calculate the STAX indemnity payment		5. Calculate the STAX indemnity payment		5. Calculate the STAX indemnity payment	
Indemnity per acre	\$122.88	Indemnity per acre	\$122.88	Indemnity per acre	\$103.65	Indemnity per acre	\$51.83
6. STAX Premium		6. STAX Premium		6. STAX Premium		6. STAX Premium	
Price Volatility	0.14	Price Volatility	0.14	Price Volatility	0.14	Price Volatility	0.14
Coverage Range	20%	Coverage Range	15%	Coverage Range	10%	Coverage Range	5%
RMA Act. Data ^{5/}	0.3673	RMA Act. Data ^{5/}	0.4152	RMA Act. Data ^{5/}	0.4711	RMA Act. Data ^{5/}	0.5244
Total Premium	\$76.14	Total Premium	\$64.56	Total Premium	\$48.83	Total Premium	\$27.18
FCIC Subsidized Portion ^{6/}	\$60.91	FCIC Subsidized Portion ^{6/}	\$51.64	FCIC Subsidized Portion ^{6/}	\$39.06	FCIC Subsidized Portion ^{6/}	\$21.74
GRW Portion of Premium	\$15.23	GRW Portion of Premium	\$12.91	GRW Portion of Premium	\$9.77	GRW Portion of Premium	\$5.44
GRW Indemnity Less Premium	\$107.65	GRW Indemnity Less Premium	\$109.97	GRW Indemnity Less Premium	\$93.89	GRW Indemnity Less Premium	\$46.39

Notes:

^{1/} The STAX coverage range is in increments of 5% and cannot exceed 20%.

^{2/} STAX operates as a RP policy which uses the higher of the insurance or harvest price.

^{3/} A protection factor can be selected between 0.80 (80%) and 1.2 (120%) to determine the maximum STAX policy protection level per acre.

^{4/} The STAX payment factor cannot be greater than 1.0.

^{5/} STAX policy premium rates is based off of a price volatility factor of 0.23 for an irrg. policy with varying coverage range (Tensas Parish).

^{6/} STAX policy premium is subsidized by FCIC at 80%.

Table 5. STAX operational mechanics for irrigated cotton in East Carroll Parish, LA.

1. Determine range of coverage		1. Determine range of coverage		1. Determine range of coverage		1. Determine range of coverage	
Area Loss Trigger (%)	90%	Area Loss Trigger (%)	90%	Area Loss Trigger (%)	90%	Area Loss Trigger (%)	90%
Area Loss Ending (%)	70%	Area Loss Ending (%)	75%	Area Loss Ending (%)	80%	Area Loss Ending (%)	85%
STAX Coverage Range ^{1/}	20%	STAX Coverage Range ^{1/}	15%	STAX Coverage Range ^{1/}	10%	STAX Coverage Range ^{1/}	5%
2. Calculate STAX policy protection		2. Calculate STAX policy protection		2. Calculate STAX policy protection		2. Calculate STAX policy protection	
Proj. Insurance Price	\$0.99	Proj. Insurance Price	\$0.99	Proj. Insurance Price	\$0.99	Proj. Insurance Price	\$0.99
Harvest Insurance Price	\$0.90	Harvest Insurance Price	\$0.90	Harvest Insurance Price	\$0.90	Harvest Insurance Price	\$0.90
Expected Area Yield	1177.0	Expected Area Yield	1177.0	Expected Area Yield	1177.0	Expected Area Yield	1177.0
Expected STAX Value ^{2/}	\$1,165.23	Expected STAX Value ^{2/}	\$1,165.23	Expected STAX Value ^{2/}	\$1,165.23	Expected STAX Value ^{2/}	\$1,165.23
STAX Coverage Range	20%	STAX Coverage Range	15%	STAX Coverage Range	10%	STAX Coverage Range	5%
Protection Factor ^{3/}	1.00	Protection Factor ^{3/}	1.00	Protection Factor ^{3/}	1.00	Protection Factor ^{3/}	1.00
STAX Policy Protection	\$233.05	STAX Policy Protection	\$174.78	STAX Policy Protection	\$116.52	STAX Policy Protection	\$58.26
3. Calculate the revenue loss (if any)		3. Calculate the revenue loss (if any)		3. Calculate the revenue loss (if any)		3. Calculate the revenue loss (if any)	
Final Area Yield	1000.0	Final Area Yield	1000.0	Final Area Yield	1000.0	Final Area Yield	1000.0
Harvest Price	\$0.90	Harvest Price	\$0.90	Harvest Price	\$0.90	Harvest Price	\$0.90
Final Area Revenue	\$900.00	Final Area Revenue	\$900.00	Final Area Revenue	\$900.00	Final Area Revenue	\$900.00
Percent of Exp. Revenue	77.24%	Percent of Exp. Revenue	77.24%	Percent of Exp. Revenue	77.24%	Percent of Exp. Revenue	77.24%
4. Calculate the STAX payment factor		4. Calculate the STAX payment factor		4. Calculate the STAX payment factor		4. Calculate the STAX payment factor	
Area Loss Trigger	90%	Area Loss Trigger	90%	Area Loss Trigger	90%	Area Loss Trigger	90%
Percent of Exp. Revenue	77.24%	Percent of Exp. Revenue	77.24%	Percent of Exp. Revenue	77.24%	Percent of Exp. Revenue	77.24%
Percent Loss	12.76%	Percent Loss	12.76%	Percent Loss	12.76%	Percent Loss	12.76%
STAX Coverage Range	20%	STAX Coverage Range	15%	STAX Coverage Range	10%	STAX Coverage Range	5%
STAX Payment Factor ^{4/}	0.638	STAX Payment Factor ^{4/}	0.851	STAX Payment Factor ^{4/}	1.276	STAX Payment Factor ^{4/}	2.552
5. Calculate the STAX indemnity payment		5. Calculate the STAX indemnity payment		5. Calculate the STAX indemnity payment		5. Calculate the STAX indemnity payment	
Indemnity per acre	\$148.71	Indemnity per acre	\$148.71	Indemnity per acre	\$116.52	Indemnity per acre	\$58.26
6. STAX Premium		6. STAX Premium		6. STAX Premium		6. STAX Premium	
Price Volatility	0.14	Price Volatility	0.14	Price Volatility	0.14	Price Volatility	0.14
Coverage Range	20%	Coverage Range	15%	Coverage Range	10%	Coverage Range	5%
RMA Act. Data ^{5/}	0.3369	RMA Act. Data ^{5/}	0.3854	RMA Act. Data ^{5/}	0.4395	RMA Act. Data ^{5/}	0.4978
Total Premium	\$78.51	Total Premium	\$67.36	Total Premium	\$51.21	Total Premium	\$29.00
FCIC Subsidized Portion ^{6/}	\$62.81	FCIC Subsidized Portion ^{6/}	\$53.89	FCIC Subsidized Portion ^{6/}	\$40.97	FCIC Subsidized Portion ^{6/}	\$23.20
GRW Portion of Premium	\$15.70	GRW Portion of Premium	\$13.47	GRW Portion of Premium	\$10.24	GRW Portion of Premium	\$5.80
GRW Indemnity Less Premium	\$133.00	GRW Indemnity Less Premium	\$135.23	GRW Indemnity Less Premium	\$106.28	GRW Indemnity Less Premium	\$52.46

Notes:

^{1/} The STAX coverage range is in increments of 5% and cannot exceed 20%.

^{2/} STAX operates as a RP policy which uses the higher of the insurance or harvest price.

^{3/} A protection factor can be selected between 0.80 (80%) and 1.2 (120%) to determine the maximum STAX policy protection level per acre.

^{4/} The STAX payment factor cannot be greater than 1.0.

^{5/} STAX policy premium rates is based off of a price volatility factor of 0.23 for an irrg. policy with varying coverage range (East Carroll Parish).

^{6/} STAX policy premium is subsidized by FCIC at 80%.